

WHAT IS CLAIMED IS:

1. A method of treating or retarding a malignant tumor in a mammal comprising administering subcutaneously to said mammal in need of such treatment an effective amount of a water-insoluble compound with a closed-lactone ring wherein said malignant tumor is selected from the group consisting of breast cancer, colon cancer, lung cancer, stomach cancer, ovarian cancer, pancreas cancer, prostate cancer, osteosarcoma, melanoma, and bladder cancer;

and wherein said compound is selected from the group consisting of 20(S)-camptothecin, 9-nitro-20(S)-camptothecin, 9-amino-20(S)-camptothecin, dimethylaminomethyl-10-hydroxy-20(S)-camptothecin (topotecan), 7-ethyl-10-carbonyloxy-camptothecin (camptothecin-11), 7-ethyl-10-hydroxy-20(S)-camptothecin, 10,11-methylenedioxy-20(S)-camptothecin, 9-chloro-20(S)-camptothecin, 9-bromo-20(S)-camptothecin, 9-hydroxy-20(S)-camptothecin, 11-hydroxy-20(S)-camptothecin, 10-hydroxy-20(S)-camptothecin, and mixtures thereof.

2. The method according to claim 1, wherein said compound is selected from the group consisting of 20(S)-camptothecin, 9-Nitro-20(S)-camptothecin and 9-Amino-

20(S)-camptothecin.

3. The method according to claim 1, wherein said effective amount is from about 1 mg/per kg of body weight twice a week to about 4 mg/per kg of body weight twice a week in mice.

4. The method according to claim 1, wherein said effective amount is administered daily from about .75 mg/per kg to about 1.5 mg/per kg in mice.

5. The method according to claim 1, wherein said effective amount is from about 12.5 mg/m² of body surface per day to about 31.3 mg/m² of body surface per day in humans.

6. The method of claim 1, wherein said compound is 20(S)-camptothecin.

7. The method of claim 1, wherein said compound is 9-nitro-20(S)-camptothecin.

8. The method of claim 1, wherein said compound is 9-amino-20(S)-camptothecin.

9. The method of claim 1, wherein said compound is 9-nitro-20(S)-camptothecin and said malignant tumor is breast cancer.